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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,680	01/24/2006	Chikara Takagi	284856US3XPCT	2917

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EXAMINER
HUDA, SAEED M

ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
07/16/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/565,680	TAKAGI ET AL.	
	Examiner	Art Unit	
	SAEED M. HUDA	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-22* is/are pending in the application.

4a) Of the above claim(s) *15-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The response filed on 04/21/2009 has been fully considered and entered into the record.

Response to Arguments

2. Applicant's arguments filed 04/21/2009, with respect to the rejection(s) of claim(s) 12-14 under Caretta (US 2002/0053759) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Seko et al. (JP 2003-62832 A).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Seko et al. (JP 2003-62832 A).

Seko et al. teach a tire vulcanization method and a tire vulcanization device specifically, it pertains to a tire vulcanization method and tire vulcanization device ([0001]). Seko et al. go on to state that an upper mold 25, lower mold 18, and split-type sector mold 20 are provided in the circumferential direction and are open. Green tire W (unvulcanized tire W) is set while it is centered with respect to bladder 16 that is

attached to bladder centering mechanism 17 which protrudes from the central part of lower mold 18. Green tire W is automatically carried in, centered, and carried out using a transport device (not shown) ([0033]). A fluid at prescribed temperature pre-pressurized to a prescribed pressure is introduced into bladder 16 in said state so as to shape green tire W and hold green tire W. Then, bladder centering mechanism 17 is lowered in order to set green tire W onto lower mold 18 ([0034]).

The parts of aforementioned sector mold 20 are put together and fixed while forementioned upper mold 25 is lowered in said state. As described above, when tapered blocks 30 are lowered in conjunction with the lowering of support plate 23, this operation is carried out by moving sector mold 20 toward bladder centering mechanism 17 by converting the downward force applied in the perpendicular direction into horizontal force components via the tapered surfaces while engagement parts 30a of tapered blocks 30 are engaged with engagement grooves 28x of slide blocks 28 of sector mold 20 ([0035]). In addition, because first sealing plate 41 of sealing means 40 is also lowered when support plate 23 is lowered so as to hermetically cover the circumference of upper mold 25, air in and around upper mold 25 is drawn out using a vacuum device (not shown) at this time in order to eliminate the effects of residual air during vulcanization ([0036]).

Then, because second seal plate 42 of sealing means 40 covers the entire circumference of the molds when upper mold 25 and sector mold 20 are completely closed, air is drawn out of the molds in said state using the vacuum device (not shown) in order to create a vacuum. Then, the respective molds are prevented from opening

during vulcanization using said stopper means 36 as a stopper ring and mold clamp means 38 ([0037]). Pressurized fluid Qa heated to a prescribed temperature is introduced into aforementioned bladder 16 from said condition using a prescribed pressured required for vulcanization; and upper and lower molds 25 and 18 and sector pieces 27 are heated using heating means 18a, 19, and 25a which are embedded in aforementioned respective molds in order to vulcanize green tire W ([0038]). Once the vulcanization is completed after a prescribed time has elapsed, heated pressurized fluid Qa inside of aforementioned bladder 16 is discharged to the outside; upper mold 25 is raised so as to extend the parts of sector mold 20 (they are automatically extended as upper mold 25 is raised); and the finished vulcanized tire is removed from aforementioned upper mold 25, lower mold 18, and bladder centering mechanism 17 using a transport device (not shown), which concludes the process ([0039]). Additionally, figure 1 should be referenced with regards to this rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seko et al. (JP 2003-62832 A) in view of Babel (JP 49024286).

a. Regarding claim 13, Seko et al. fails to teach all the claimed limitations of the claim. Babel teaches a tire material vulcanizing press, which is made from

two parts, characterized in that said press is comprised of: a lower mold chamber; an upper mold chamber, which can move in the axial direction so as to engage in said lower mold chamber; a long operational element, which can operate between the first position, wherein the upper end of said element is extended in the direction of the upper mold chamber, and the lower position, wherein said upper end is pulled into the lower mold chamber, and said element is installed in the center of the press so as to move from the upper position to the lower position when the upper mold chamber moves towards the lower mold chamber, and at the same time, said element is positioned within the lower mold chamber so as to reciprocally move in the axial direction; a vulcanizing inner tube, which can be inserted into the tire material and expanded; a means for fixing the upper surface of said inner tube to the upper part of said element; a ring-like sleeve, which is held in the lower mold chamber and concentric with said element; a means for fixing the lower surface of said inner tube to the upper end of said sleeve; and a device for loading said sleeve so that said sleeve reciprocally moves in the axial direction between the position, wherein said sleeve is extended in the upper direction, and the position, wherein said sleeve is pulled into the lower part of the lower mold chamber, while said movement of said sleeve is made independently from the axial movement of said element (claim 1).

Babel goes on to teach that a tire material vulcanizing press, which is made from two parts, characterized in that said press is comprised of: a lower

mold chamber; an upper mold chamber, which can move in the axial direction so as to engage in said lower mold chamber; a cylinder, which is installed in the center part inside the lower mold chamber; a piston, which is installed inside the cylinder so as to move in the axial direction between the upper position and the lower position and can move from the upper position to the lower position when the upper mold chamber moves toward the lower mold chamber; vulcanizing inner tube, which can be inserted into the tire material and expanded; a means for fixing the upper surface of said inner tube to the upper part of said piston; a ring-like sleeve, which is held in the lower mold chamber and surrounds said cylinder; a means for fixing the lower surface of said inner tube to the upper end of said sleeve; and a device for loading said sleeve so that said sleeve reciprocally moves in the axial direction between the position, wherein said sleeve is extended in the upper direction, and the position, wherein said sleeve is pulled into the lower part of the lower mold chamber, and said movement of said sleeve is independent from the axial movement of said piston (claim 2). Additionally, see figure 1-9. It would have been obvious to one having ordinary skill in the art at the time of the invention to use the features of a tire material vulcanizing press, as described in Babel in the invention of Seko et al. because the use of the apparatus Babel leads to an efficient tire producing process (page 9, lines 8-11).

b. Regarding claim 14, Seko et al. teach the limitations regarding a bladder is expandable and contractible at a vulcanization position, tire delivery position,

expansion, contraction, and removal of the tire (see rejection for claim 12 and the Seko et al. reference).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAEED M. HUDA whose telephone number is (571)270-5514. The examiner can normally be reached on 8:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KHANH NGUYEN/
Primary Examiner, Art Unit 1791

/SAEED M. HUDA/
Examiner, Art Unit 1791